



NASA Procedural Requirements

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Request Notification of Change

(NASA Only)

Subject: NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping

Responsible Office: Office of Safety and Mission Assurance

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CHAPTER 1. General Information

1.1 Objectives of NASA Mishap and Close Call Investigations

The objective of mishap and close call investigations is to improve safety by identifying what happened, where it happened, when it happened, why it happened, and what should be done to prevent recurrence and reduce the number and severity of mishaps.

1.2 Description of NASA Mishaps and Close Calls

1.2.1 NASA Mishap. An unplanned event that results in at least one of the following:

1.2.1.1 Injury to non-NASA personnel, caused by NASA operations.

1.2.1.2 Damage to public or private property (including foreign property), caused by NASA operations or NASA-funded development or research projects.

1.2.1.3 Occupational injury or occupational illness to NASA personnel.

1.2.1.4 NASA mission failure before the scheduled completion of the planned primary mission.

1.2.1.5 Destruction of, or damage to, NASA property.

1.2.2 The following are not considered NASA mishaps.

1.2.2.1 A malfunction or failure of component parts that are normally subject to fair wear and tear and have a fixed useful life that is less than the fixed useful life of the complete system or unit of equipment, provided that all of the following are true:

a. There was adequate preventative maintenance.

b. The malfunction or failure was the only damage, and the sole action is to replace or repair that component. (This exception does not apply to a malfunction or failure of a component part that results in damage to another component or the facility or injury to personnel.)

1.2.2.2 A test failure involving damage to equipment or property as a result of testing, provided that all of the following are true:

a. The test article is not flight hardware.

b. The testing is part of an authorized research/development/qualification/certification program.

c. Damage is limited to the test article and test instrumentation.

d. Risk of damage to the test article and test instrumentation resulting from failure was accepted explicitly (i.e., documented) by program/project management and concurred on by the Center safety office.

e. The test team performs a test failure analysis and generates a technical report instead of treating it as a mishap and completing a mishap report.

1.2.2.3 A failure resulting in damage to flight hardware during the ground Acceptance Test Procedure (ATP) is not a mishap when all of the following are true:

a. The failure is a predictable outcome.

b. Only the flight article is damaged or failed, and testing did not damage the test stand or facility or cause personnel injury.

c. The test equipment functioned properly.

d. There were no anomalies in the facility or test procedures that could have contributed to the article failure.

e. The test team performs a test failure analysis that identifies the root cause(s) of the failure and generates a technical report instead of treating it as a mishap and completing a mishap report.

1.2.2.4 Destruction of, or damage to, any property (public, private, or government) on a Center or involving NASA property outside the Center's gates, as a direct result of only the following weather conditions: hurricane, lightning, tornado, tidal wave, tsunami, water spout ice/snow loads (e.g., on electrical wires).

Note: In these cases, the weather is the initiating event (proximate cause) for the mishap. If the weather was an intermediate cause or a contributing factor to a mishap, this exemption to "mishap classification" would not apply.

1.2.2.5 Destruction of, or damage to, any property (public, private, or government) on a Center or involving NASA property outside the Center's gates, as a direct result of a natural phenomenon such as a flood, landslide, earthquake, meteoroid landing, or volcanic eruption.

Note: In these cases, the natural phenomenon is the initiating event (proximate cause) for the mishap. If the natural phenomena was an intermediate cause of an incident or contributed to a mishap, this exemption to "mishap classification" would not apply.

1.2.2.6 When an event is not considered a mishap because the initiating event (proximate cause) is natural phenomenon or weather, the cognizant Center safety office shall enter the event and a description of the damage in IRIS. (Requirement).

Note: Close calls involving aircraft may be entered into the NASA Aviation Anomaly Reporting System (NAARS) in lieu of IRIS.

Note: The cognizant Center safety office is the safety office of the Center that hosts the project or that has been assigned Safety and Mission Assurance (SMA) responsibilities for the program.

Note: NASA classifies all weather and natural phenomena as "Acts of Nature" in IRIS.

Incident Category: "Incident"

Incident Type: "Acts of Nature "

Incident subtype: " wind, rain, snow, lightning, earthquake"

Classification: "Non-NPR 8621.1 issue"

1.2.2.7 When an event is not considered a mishap because the initiating event (proximate cause) is natural phenomenon or weather, the organization incurring the damage shall perform a technical assessment to evaluate design and construction aspects, contingency planning, and emergency response and provide facts, findings, and recommendations to the Center Director through the Center SMA Director (or equivalent office with responsibilities for the Center's facility safety program) (Requirement).

1.2.2.8 NASA property damage or personnel injuries that are the result of vandalism, riots, civil disorders, or felonious acts such as arson or sabotage are not considered NASA mishaps. These incidents should be reported and investigated in accordance with procedures under NPD 9800.1, NASA Office of Inspector General Programs, and NPR 1600.1, NASA Security Program Procedural Requirements.

1.2.3 Close Call. An event in which there is no injury or only minor injury requiring first aid and/or no equipment/property damage or minor equipment/property damage (less than \$1000), but which possesses a potential to cause a mishap.

1.3 Determining the Classification Level and Type of Investigation to be Conducted

1.3.1 The severity of the personnel injury and the direct cost of the mishap or close call (property damage and/or mission failure) shall determine the classification level of the mishap or close call (see Figure 1) and the corresponding type of investigation to be conducted ([Requirement 31069](#)).

1.3.2 When the Administrator, Associate Administrator (AA), Mission Directorate Associate Administrator (MDAA), Chief Office of Safety and Mission Assurance (Chief/OSMA), the Designated Agency Safety and Health Official (DASHO), Center Director (CD), or the Assistant Administrator, Office of Infrastructure and Administration (AA/OIA), believes that the mishap or close call is a high-visibility event, he/she may elevate the mishap classification level of investigation to the classification he/she deems appropriate and request the appropriate appointing official to form a Mishap Investigation Board (MIB).

1.3.3 Determining the direct cost of the mishap or close call (for the purpose of mishap classification).

1.3.3.1 The responsible manager, with review and concurrence by the Center safety office, shall calculate the direct cost of a mishap or close call by adding all the actual costs (or the estimate of the cost) (the greater value of actual or fair market value) of damaged property, destroyed property, or mission failure, actual cost of repair or replacement, labor (actual value of replacement or repair hours for internal and external/contracted labor), cost of the lost commodity (e.g., the cost of the fluid that was lost from a ruptured pressure vessel), as well as resultant costs such as environmental decontamination, property cleanup, and restoration ([Requirement 31072](#)).

1.3.3.2 In cases where replacement parts are available from salvaged or excess equipment at little or no cost to NASA, the direct cost of the mishap or close call shall include the actual costs of replacement parts (if they were purchased new) plus labor calculated as if the salvage/excess parts were unavailable ([Requirement 31073](#)).

1.3.3.3 In cases where insurance compensation, contractor compensation, or other compensation is available or provided, the direct cost of the mishap or close call shall include the direct cost (or estimate of the cost) as if this compensation were not available or provided ([Requirement 31074](#)).

1.3.3.4 The cost of the safety mishap investigation shall not be included in the direct cost ([Requirement 31075](#)).

Figure 1. Mishap Classification Levels and Type of Investigation to be Conducted

Classification Level & Investigation Type	Property Damage	Injury
Type A Mishap	Total direct cost of mission failure and property damage is \$1,000,000 or more, <i>or</i> Crewed aircraft hull loss has occurred, <i>or</i> Occurrence of an unexpected aircraft departure from controlled flight (except high performance jet/test aircraft such as F-15, F-16, F/A-18, T-38, OV-10, and T-34, when engaged in flight test activities).	Occupational injury and/or illness that resulted in: A fatality, <i>or</i> A permanent total disability, <i>or</i> The hospitalization for inpatient care of 3 or more people within 30 workdays of the mishap.
Type B Mishap	Total direct cost of mission failure and property damage of at least \$250,000 but less than \$1,000,000.	Occupational injury and/or illness has resulted in permanent partial disability. <i>or</i> The hospitalization for inpatient care of 1-2 people within 30 workdays of the mishap.
Type C Mishap	Total direct cost of mission failure and property damage of at least \$25,000 but less than \$250,000.	Nonfatal occupational injury or illness that caused any workdays away from work, restricted duty, or transfer to another job beyond the workday or shift on which it occurred.
Type D Mishap	Total direct cost of mission failure and property damage of at least \$1,000 but less than \$25,000.	Any nonfatal OSHA recordable occupational injury and/or illness that does not meet the definition of a Type C mishap.
Close Call	An event in which there is no equipment/property damage or minor equipment/property damage (less than \$1000), but which possesses a potential to cause a mishap.	An event in which there is no injury or only minor injury requiring first aid, but which possesses a potential to cause a mishap.

1.4 Roles and Responsibilities

1.4.1 Administrator. The Administrator:

- May elect to be the appointing official for Type A mishaps or delegate to the AA. (If the Administrator elects not to be the appointing official, the MDAA, CD, or another designee will serve as the appointing official.) ([Requirement 31078](#)).
- Shall serve as appointing official for NASA joint participation on a MIB with the Department of Defense (DoD) and other agencies unless authority is delegated by existing agreements ([Requirement 31079](#)).
- May elect to be an endorsing official for Type A mishaps and other mishaps in which he/she is the appointing official.

1.4.2 Chief/OSMA. The Chief/OSMA or designee shall:

- Ensure the proper reporting, investigating, and recordkeeping for mishaps and close calls by defining the mishap reporting and investigating process, updating this NPR, verifying its implementation, developing mishap investigation training, and identifying candidate mishap investigation tools ([Requirement 31082](#)).
- Concur with the mishap classification level, investigation approach, and the MIB membership and serve as an endorsing official for the mishap report for Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls ([Requirement 31083](#)).
- Provide a qualified NASA person to support NTSB investigations of NASA aircraft mishaps ([Requirement 17014](#)).
- Archive NASA Headquarters-approved NASA mishap investigation board reports and related documents per NPR 1441.1 ([Requirement 17015](#)).

1.4.3 Inspector General. The Inspector General shall investigate criminal activity associated with mishaps and close calls ([Requirement 31084](#)).

1.4.4 AA. The AA shall:

- Serve as the appointing official for Type A mishaps if designated by the Administrator ([Requirement 31090](#)).
- Obtain concurrence from the Chief/OSMA and the Chief Engineer on the MIB membership of mishaps in which he/she is the appointing official ([Requirement 31092](#)).
- Serve as an endorsing official for all mishaps in which he/she is the appointing official ([Requirement 31093](#)).

1.4.5 MDAA. The MDAA shall:

- Implement the mishap and close call reporting, investigating, and recordkeeping requirements for their assigned Mission Directorates for mishaps and close calls that occur outside the Center's gates, during in-space flight, or at a program/project contractor site that is not managed by a Center ([Requirement 31086](#)).
- Approve via signature all his/her program and project (as defined in NPR 7120.5) Program/Project Mishap Preparedness and Contingency Plans. (These plans will be developed by the cognizant Center safety offices, and will include procedures to notify, report, investigate, and record mishaps and close calls that involve Mission Directorate programs/projects/activities whether onsite or offsite, and whether on the ground or in

flight.) ([Requirement 31088](#)).

Note: All mishaps that occur at a Center are investigated per the Center's Mishap Preparedness and Contingency Plan. The program's plan supports the Center plan by providing additional information such as, but not limited to, hazardous materials, partner agreements, and program contact lists. It also serves as a stand-alone plan for mishaps and close calls that occur outside the Center's gates, during in-space flight, or at a program/project contractor site.

c. Determine the mishap classification level (or assign a designee to determine the classification level) for all mishaps for which he/she has reporting responsibility and obtain concurrence on this classification level from the Chief/OSMA for Type A and B mishaps, high-visibility mishaps, and high-visibility close calls (Requirement).

Note: Aircraft Operations are managed by a program-independent flight operations office; therefore, the Center Director serves as the appointing official for Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls involving aircraft managed by his/her Center.

d. Serve as the appointing official for Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls that involve Mission Directorate managed programs/projects/activities that occur during space flight or occur outside the Center's gates at MDA program/project sites (excludes off-site Center support contractor locations).

Aircraft Operations are managed by a program-independent flight operations office; therefore, the Center Director serves as the appointing official for mishaps and close calls involving aircraft managed by his/her Center.

e. Serve as the appointing official (or designate the responsibility in the Program/Project Mishap Preparedness and Contingency Plan) for Type C mishaps, Type D mishaps, and close calls that involve Mission Directorate managed programs/project/activities that occur during space flight or occur outside the Center's gates, during at MDA program/project sites (excludes off-site Center support contractor locations).

f. Provide funding and support for investigations within their programs and involving their hardware, facilities, or enabling activities ([Requirement 31094](#)).

g. Ensure that agreements for joint programs with international partners and other Federal agencies incorporate elements of this NPR to ensure that joint mishap investigating and reporting complies with NASA requirements ([Requirement 17020](#)).

1.4.6 Assistant Administrator, Office of Public Affairs (AA/OPA).

a. The AA/OPA shall establish guidelines for the public release of mishap reports and related information ([Requirement 31096](#)).

b. With the assistance of the Center safety office, Interim Response Team (IRT), investigating authority, and CD or AA/OIA, the AA/OPA shall release information to the press and media (i.e., potential hazards that may affect the public, interim reports, and the authorized mishap report) ([Requirement 31097](#)).

c. For Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls, the AA/OPA (or designee) shall appoint a Headquarters public affairs advisor ([Requirement 31098](#)). (For Type B mishaps the AA/OPA may delegate authority to appoint a public affairs advisor to the Center Public Affairs Office [PAO].)

1.4.7 CD and AA/OIA. The CD and the AA/OIA shall:

a. Develop Center and Program Mishap Preparedness and Contingency Plans to support this NPR (this includes procedures to notify, report, investigate, and record mishaps and close calls that involve programs, projects, and activities that fall under their responsibility) (Requirement).

b. Implement the mishap reporting, investigating, and recordkeeping requirements for all projects, programs, and activities that fall under their SMA responsibility (Requirement).

c. Provide funding and support for investigations at their Centers, within their projects and programs, and involving their hardware, facilities, or enabling activities (Requirement).

d. Determine the mishap classification level (or assign a designee to determine the classification level) for all mishaps for which the Center has reporting responsibility and obtain concurrence on this classification level from the Chief/OSMA for Type A and B mishaps, high-visibility mishaps, and high-visibility close calls ([Requirement 31101](#)).

e. Serve as the appointing official for Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls that occur at his/her Center, at off-site Center support contractor locations, or at off-site contractor locations that are managed by the Center and are not part of any MDA program/project activity (Requirement).

Note: Aircraft Operations are managed by a program-independent flight operations office; therefore, the Center Director serves as the appointing official for mishaps and close calls involving aircraft managed by his/her Center.

f. Serve as the appointing official (or designate the responsibility in the Center Mishap Preparedness and Contingency Plan) for Type C mishaps, Type D mishaps, and close calls that occur at his/her Center, at off-site Center support contractor locations, or at off-site contractor locations that are managed by the Center and are not part of any MDA program/project activity.

g. In the event that there is a mishap involving injury of a human research subject at a NASA Center, request the Chief Health and Medical Officer (CHMO) concurrence on the investigating authority's membership (Requirement).

h. Personally report, by telephone or e-mail, to the Administrator within 24 hours of learning the instance of any NASA Type A mishap, or NASA Type B mishap, and personally report (or Deputy to report), by telephone or e-mail, to the Associate Administrator within 24 hours of learning the instance of any NASA Type C mishap that involves a lost-time injury or illness (Requirement).

i. Personally report, by telephone or e-mail, to the Administrator within 24 hours of any nonoccupational fatality, such as sudden cardiac arrest of a NASA civil service employee or a resident contractor that occurred on site (a resident contractor is a NASA contractor whose primary place of business is on or near a NASA Center or NASA-owned facility) (Requirement).

j. Personally report, by telephone or e-mail, to the Administrator when it becomes known that there is any off-the-job fatality or serious injury/illness of a NASA civil service employee or resident contractor (Requirement).

k. Ensure that local procedures for dealing with the needs of the NASA workforce (civil service employees and contractor employees) when they are experiencing a crisis situation (e.g., serious injury, illness, or fatality of workforce member or family member) are:

(1) Reviewed annually (Requirement).

(2) Include a process for immediately notifying the next of kin for mishaps and on site nonoccupational medical events resulting in fatality or serious injury (Requirement).

(3) Provide information to the person or family (when the person is unable to receive such information due to the injury or illness) concerning benefits, such as extended sick-leave and disability (Requirement).

l. Ensure that the NASA civil service employees designated to communicate with the family of an injured, ill, or deceased individual have received training in NASA policy concerning benefits and crisis intervention (Requirement).

m. Initiate the use of the NASA Family Assistance Fund (NFAF), upon the NASA civil service employee family's agreement or request (Requirement).

Note: The NFAF, in cooperation with the Federal Employees Education and Assistance Fund (FEEA), is available to help meet the unforeseen medical, financial, and educational needs of NASA civil service employees. NFAF and FEEA do not provide assistance to contractors. Upon request from a NASA civil service employee, NASA Human Resources, Personnel Division, will contact the Chair of the NFAF and FEEA's Washington Representative, to request assistance. FEEA can assist with immediate financial needs, such as funeral expenses, medical expenses, and short-term financial hardships.

n. Obtain concurrence from the Chief/OSMA and the Chief Engineer on the MIB membership of Type A, Type B, high-visibility mishaps, and high-visibility close calls in which he/she is the appointing official (Requirement 31103).

o. Provide administrative and logistical support for the investigating authority working on the Center and distribute the authorized mishap report per this NPR (Requirement 31104).

p. Verify that NASA contractors and grantees conduct mishap investigations and provide mishap reports as specified in their contracts and in NFS 1852.223-70 (Requirement 31105).

q. Serve as an endorsing official for mishaps and close calls in which he/she is the appointing official (Requirement 31106).

1.4.7.1 The AA/OIA shall provide funding and support for investigations of mishaps that occur at NASA Headquarters (Requirement 31107).

1.4.8 Program and Project Managers. Program and project managers shall:

a. Concur on the Program/Project Mishap Preparedness and Contingency Plan (Requirement 31109).

b. In the event of a mishap or close call at the Center, activate the Program Mishap Preparedness and Contingency Plan (Requirement 31111).

c. Provide funding and support for investigations within their program jurisdiction or involving their hardware and facilities (Requirement 31112).

d. Assist the investigating authority as requested (Requirement 31113).

e. When tasked by the appointing official, develop the Corrective Action Plan (CAP), implement the CAP, support the Center safety office personnel as they verify that the CAP has been completed, and generate the lessons learned (Requirement 31114).

1.4.9 Responsible Organization. The responsible organization shall:

a. Assist the investigating authority as requested (Requirement 31116).

b. When tasked by the appointing official, develop the CAP, implement the CAP, support the Center safety office personnel as they verify that the CAP has been completed, and generate the lessons learned (Requirement 31117).

1.4.10 Appointing Official. The appointing official shall:

a. Use this NPR to determine the type of investigating authority (i.e., Mishap Investigation Board [MIB], Mishap Investigation Team [MIT], or Mishap Investigator [MI]) that will investigate a mishap or close call or, alternately, whether NASA will accept the investigation and subsequent mishap report of another competent authority that may have jurisdiction (Requirement 31119).

b. Determine the level of NASA involvement, if any, when a mishap resulted from the actions of an outside source that was not involved in NASA operations (Requirement 31120).

c. Initiate a NASA investigation pursuant to this NPR, when the appointing official believes that a NASA contractor's/grantee's mishap report is not adequate because it failed to reach root cause(s), failed to provide recommendations that prevent recurrence, is not suitably independent, or is in some other way deficient (Requirement 31121).

d. Generate a formal memorandum for Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls that communicates the appointment of the investigating authority members, the chairperson, the ex officio, and the advisors. (For Type C mishaps, Type D mishaps, and close calls, the appointment orders can be less formal and communicated via a Center process.)

e. Serve as an endorsing official for mishaps and close calls in which he/she is the appointing official (Requirement 31123).

f. Assign the responsible organization(s)/program(s)/project(s) to develop the CAP, implement the CAP, and generate the lessons learned (Requirement 31124).

g. Ensure that the mishap investigation process for the assigned mishap or close call is properly completed (Requirement 31125).

h. Verify that the mishap report is reviewed, endorsed, and authorized for public release (Requirement 31126).

i. Ensure that the CAP is developed and implemented (Requirement 31127).

j. Ensure that the lessons learned are developed, reviewed, and authorized for public release (Requirement 31128).

k. Release the investigating authority from duty (Requirement 31129).

l. Generate the CAP closure statement and the mishap activities completion statement (Requirement 31130).

m. Assist the investigating authority as requested (Requirement 31134).

n. If the NTSB performs an investigation, the appointing official shall:

(1) Initiate a NASA mishap investigation per this NPR (Requirement 31132).

(2) Request that a NASA representative be a party to the NTSB's investigation (Requirement 31133).

1.4.11 Endorsing Official.

a. The endorsing official shall review the mishap investigation report and provide a signed written endorsement, comments, and a recommendation as to whether the mishap report should be approved or rejected (Requirement 31135).

b. This endorsement and any comments shall be attached to the mishap report and become part of the permanent record (Requirement 31136).

1.4.12 Ex Officio. The ex officio shall:

a. Serve as the authorized representative of the Chief/OSMA (Requirement 31138).

- b. Be a nonvoting participant in all investigation deliberations ([Requirement 31139](#)).
- c. Participate in all investigation proceedings as he/she deems appropriate ([Requirement 31140](#)).
- d. Assure that the investigation is conducted in conformance with NASA policy and this NPR and the investigation process is fair, independent, and nonpunitive ([Requirement 31141](#)).
- e. Assure that the mishap report contains the proper elements including proximate cause(s), root cause(s), failed barrier(s), and observation(s); sufficient facts/data to support the finding(s) and recommendation(s); and a mishap investigation summary ([Requirement 31142](#)).
- f. Sign the final mishap report demonstrating his/her belief that paragraphs 1.4.12.d-1.4.12.e, and paragraphs 1.7.1.a-1.7.1.l of this NPR have been satisfied or attach a signed written description of the report's deficiencies ([Requirement 31143](#)).
- g. For Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls, provide the Chief/OSMA interim briefings on the status of the investigation, upon his/her request ([Requirement 31144](#)).

1.4.13 Chairperson. The chairperson of the investigating authority shall:

- a. Manage and coordinate all aspects of the mishap investigation, including, but not limited to, the following tasks: assign group leaders; interview witnesses; reconstruct the mishap or close call; identify facts; identify proximate cause(s) and root cause(s); generate recommendation(s); and complete the mishap report ([Requirement 31146](#)).
- b. Have the authority to impound data, records, equipment, and facilities and collect/salvage data and debris.
- c. For mishaps at contractor or subcontractor sites, work through the contracting officer with guidance from the legal advisor to obtain and impound data.

Note: For mishaps outside the Center's gates, NASA has the authority to impound NASA property, however, the ability to impound or collect other data, records, and equipment is determined by the local and Federal laws, Agency agreements, and contracts.

- d. Release impounded data, records, equipment, facilities, and the mishap site when they are no longer needed by the investigating authority.

Note: If repairs or modifications need to be made prior to returning equipment or facilities to use, the release of impounded items should include a letter stating what action(s) is (are) needed.

- e. Define the roles and/or areas of investigative responsibility for each group or subgroup on the MIB or MIT, as needed ([Requirement 31147](#)).
- f. Coordinate with the investigating authority's legal advisor, Headquarters or Center public affairs advisor, and import/export control advisor throughout the investigation ([Requirement 31148](#)).
- g. Report only to the appointing official (or designee) during the investigation ([Requirement 31149](#)).

Note: The intent of this requirement is to provide the Chair of the Investigating Authority with only one supervisor during the investigation, thereby preventing numerous NASA requests for data and status. The report to the appointing official may include information such as a status, facts, preliminary findings (if the Chair desires), and recommendations which need immediate implementation.

- h. Refer allegations and evidence of criminal activity that are identified in the course of an investigation to the Office of Inspector General ([Requirement 31150](#)). Privileged witness statements will be protected to the extent provided by law.

1.4.14 Investigating Authority. The investigating authority shall conduct a comprehensive investigation within the defined scope of the appointment letter or appointment orders, generate the products indicated in paragraph 1.7 and Figure 5 of this NPR, prepare a mishap report, and sign the report ([Requirement 31151](#)).

1.4.15 Investigating Authority's Advisors. The advisors shall:

- a. Attend meetings as needed, travel with the investigating authority as requested, and have access to all investigative material with the exception of witness statements and testimony ([Requirement 31153](#)).

Note: The legal advisor may review witness statements and testimony in order to provide adequate legal guidance.

- b. Provide advice to the investigating authority ([Requirement 31154](#)).
- c. Sign the mishap report stating that he/she has reviewed the mishap report and that it meets NASA policies and procedures in his/her functional area. ([Requirement 31155](#)).

1.4.16 Legal Advisor. The legal advisor shall:

- a. Develop nondisclosure agreements if the investigating authority uses a contractor as administrative support (Requirement).
- b. Develop nondisclosure agreements if the investigating authority uses a contractor to analyze interview data or participate in interviews (Requirement).
- c. Provide legal advice and counsel as requested by the board chair (Requirement).
- d. Attend interviews, if the interviewee is accompanied by a lawyer during the interview process.

1.4.17 The advisors may be included or excluded from listening to any deliberations at the discretion of the chairperson.

1.4.17.1 The chairperson may exclude advisors (with the exception of the legal advisor) from participating in deliberations that discuss privileged witness testimony (Requirement).

Note: The legal advisor may review witness statements and testimony in order to provide adequate legal guidance.

1.4.18 Investigating Authority's Consultants. Per their contract, consultants shall:

- a. Provide advice to the investigating authority.
- b. Perform analysis.
- c. Assist in formulating conclusions, as requested.

1.4.19 The consultants shall not:

- a. Participate in deliberations (vote on findings) ([Requirement 31161](#)).

b. Sign the mishap report ([Requirement 31162](#)).

c. Read, listen to, or participate in witness interviews unless they are tasked to analyze interviews, and they have signed a nondisclosure agreement prepared by NASA Office of the General Counsel or Center Chief Counsel ([Requirement 31163](#)).

Note: Contractors specializing in witness interview techniques or technical expertise may be hired by the MIB, if the following are true: the contractor hired to support the MIB: a. is not affiliated with the mishap, the contractors, or responsible organizations involved in the mishap; b. is specifically tasked by contract to support the interview process or analyze interviews; c. has signed the nondisclosure agreement prior to their participation or support; and d. NASA does not have a sufficient number of Federal employees or expertise on the board to perform the task.

1.4.20 If the Chair of the Investigating Authority chooses to use a person that is not a Federal employee as administrative support, that person shall sign a nondisclosure agreement prior to having access to any mishap data or International Traffic Arms Regulations (ITAR), Export Administration Regulations (EAR), proprietary, or privileged information ([Requirement](#)).

Note: An administrative support person may support the mishap board. This support may include access to privileged interview statements as long as the person is a Federal employee or the person has signed the appropriate nondisclosure agreement prior to having access to any mishap data or information.

1.4.21 Interim Response Team (IRT). The IRT shall:

a. Notify the Center PAO about casualties, damages, and any potential hazards to the public, and notify legal advisors (as appropriate) ([Requirement 31168](#)).

b. Assist the incident commander, as requested ([Requirement 31169](#)).

c. Preserve evidence, document the scene, identify witnesses, and collect debris.

d. Only Federal employees on the IRT shall support the Center safety office in impounding data and collecting witness statements (written statements when possible) ([Requirement 31170](#)).

e. For mishaps at contractor or subcontractor sites, the IRT shall work through the contracting officer, with the guidance from the legal advisor, to obtain and impound data.

Note: For mishaps outside the Center's gates, NASA has the authority to impound NASA property, however, the ability to impound or collect other data, records, and equipment is determined by the local and Federal laws, Agency agreements, and contracts.

f. Advise the supervisor if drug testing should be requested per the NPR 3792.1, Plan for a Drug-Free Workplace ([Requirement 31171](#)).

Note: Per NPR 3792.1 the supervisor shall initiate drug testing after a mishap if the mishap results in a fatality or personal injury requiring immediate hospitalization or in damage estimated to be in excess of \$10,000 to government or private property. This applies to Federal employees only. Drug testing of contractors is dependent upon their contract.

g. Provide all available mishap data and evidence to the investigating authority ([Requirement 31172](#)).

h. Support the AA/OPA (or designee), Center safety office, IRT, and CD or AA/OIA in the release of information to the press and media to alert Center personnel and the public of any known hazards and their potential effects, and provide instructions that will mitigate the risk and harm ([Requirement](#)).

1.4.22 Incident Commander. The incident commander shall implement the procedures outlined in the Center Mishap Preparedness and Contingency Plan to coordinate rescue activities, mitigate hazards, and safe and secure the mishap site ([Requirement 31173](#)).

1.4.23 Center Safety Office. The Center safety office shall:

a. Support the development of the Center Mishap Preparedness and Contingency Plan, Program Mishap Preparedness and Contingency Plan(s), contract clauses, mishap investigation training, and a mishap investigation tool repository (that makes tools readily accessible to investigating authorities) ([Requirement 31175](#)).

b. Develop the Program/Project Mishap Preparedness and Contingency Plans for Programs/Projects as defined by NPR 7120.5 and that their Center manages. Programs with aircraft in the developmental, qualification, or certification phases of the program shall have a Program Mishap Preparedness and Contingency Plan that is tailored for the particular phase of the program. ([Requirement 31110](#)).

c. Ensure that their Center's employees are familiar with the roles and responsibilities as documented within the Center Mishap Preparedness and Contingency Plan and this NPR ([Requirement 31176](#)).

d. Implement the Center Mishap Preparedness and Contingency Plan; when applicable, support the program as they initiate the Program Mishap Preparedness and Contingency Plan; and initiate, facilitate, and coordinate all investigation activities per the plan ([Requirement 31177](#)).

e. Report the mishap to Headquarters per the reporting requirements defined in this NPR and to OSHA (when applicable) ([Requirement 31178](#)).

f. Support the incident commander as he/she safes and secures the mishap site ([Requirement 31179](#)).

g. Impound data, records, equipment, and facilities ([Requirement 31180](#)).

h. Advise the supervisor that drug testing should be initiated ([Requirement 31181](#)).

i. Collect witness statements (written statements preferred) ([Requirement 31182](#)).

j. Ensure that mishap and close call information is entered in the Incident Reporting Information System (IRIS) per the requirements outline in this NPR ([Requirement 31183](#)).

Note: Close calls involving aircraft may be entered into the NASA Aviation Anomaly Reporting System (NAARS) in lieu of IRIS.

k. Verify the CAP is complete and all elements of the investigation have been completed ([Requirement 31184](#)).

l. Retain mishap investigation records per NPR 1441.1 and physical evidence (debris) as necessary ([Requirement 31185](#)).

m. Keep an updated list of all Center personnel that have training and experience in mishap investigation including information such as relevant training courses, date of training, recent participation in a mishap investigation, and security clearances ([Requirement 31186](#)).

n. Establish a Center-specific process to disseminate to other Centers the final mishap report and to rapidly disseminate preliminary mishap and close call precautionary information that meets the PAO guidelines for release ([Requirement 17028](#)).

1.4.24 The Office of Security and Program Protection (OSPP) shall:

a. Upon request from the appointing official, perform a classification review of the endorsed mishap report to determine if any section of the report (or the whole report) needs to be classified or if it may be authorized for public release.

1.4.25 The Center security office shall:

a. Support the Incident Commander, Center safety office, and IRT in securing the mishap site and impounding data, records, equipment, and facilities ([Requirement 31187](#)).

1.4.26 Supervisors. Supervisors shall:

a. Notify the Center safety office when a mishap or close call occurs ([Requirement 31189](#)).

b. Support the incident commander as he/she secures and safes the mishap site ([Requirement 31190](#)).

c. Initiate drug testing after a mishap if the mishap results in a fatality or personal injury requiring immediate hospitalization or in damage estimated to be in excess of \$10,000 to government or private property ([Requirement 31191](#)).

d. Assist the investigating authority, as requested ([Requirement 31192](#)).

e. Complete the initial mishap or close call report in accordance with the Center Mishap Preparedness and Contingency Plan ([Requirement 31193](#)).

1.4.27 All Employees. All employees shall:

a. If witness to, or involved in, a NASA mishap or close call, immediately notify both emergency response (e.g., 911, fire, ambulance, Center security office) of the need for assistance and a supervisor, management official, or a safety/health staff member of the circumstance of the mishap or close call ([Requirement 31195](#)).

b. Complete witness statements prior to leaving the mishap investigation site, to the extent possible ().

c. Provide as much information as possible to the investigating authority ([Requirement 31197](#)).

1.4.28 Center's Chief of Aircraft Operations. The Chief of Aircraft Operations shall notify the NTSB of a mishap involving aircraft per paragraph 1.6.6 of this NPR and complete NTSB Form 6120 per paragraph 1.6.8 of this NPR and NTSB requirements ([Requirement 31198](#)).

1.4.29 Contracting Officers. Contracting officers shall:

a. Involve the Center safety office in the acquisition strategy planning activities for proposed contracts as detailed in NASA NFS Part 1807, "Acquisition Planning" ([Requirement 31200](#)).

b. Incorporate applicable mishap and close call reporting and investigating procedures and corrective action requirements detailed in the NFS into contracts and grants covering NASA programs and operations ([Requirement 31201](#)).

c. Coordinate with the contractor and subcontractor sites to assist the investigating authority in gaining contractor site access, impound contractor data, and interview contractor personnel as permitted by the contract (Requirement).

1.4.30 CHMO. The CHMO shall:

a. Serve as the appointing official for a mishap involving a human research subject participating in NASA-funded research at a grantee site, or at another offsite location, and obtain the concurrence from the Chief/OSMA on the investigating authority's membership (Requirement). In these investigations, the investigating authority composition shall include a safety officer that is trained in mishap investigation (Requirement).

Note: If the mishap involving a human research subject occurs at a Center, the Center Director will serve as the appointing official per this NPR. For mishaps involving a human research subject the endorsement and authorization for public release processes will remain the same.

b. Serve as an endorsing official for Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls involving an injury or fatality ([Requirement 31202](#)).

1.4.31 Office of Institutions and Management, Office of Infrastructure and Administration, Aircraft Management Division (AMD). For Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls involving aircraft AMD shall serve as an endorsing official ([Requirement 31203](#)).

1.4.32 Office of the General Counsel. The Office of the General Counsel shall:

a. Develop and implement procedures for collateral investigations that will be performed for mishaps and close calls that do not involve criminal activity ([Requirement 31205](#)).

b. Assist the AA/OPA (or designee) in the review of the approved mishap report as it is being prepared for public release ([Requirement 31206](#)).

1.4.33 Chief Engineer. The NASA Chief Engineer shall:

a. Concur on MIB membership for Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls (Requirement).

b. Serve as an endorsing official for Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls (Requirement).

1.4.34 Roles and responsibilities are summarized in Figure 2.

Party	Administrative AA	Chief Counsel CC	Chief of Mission CM	Chief of Operations CO	CD & Director HQ Ops or Designee	Program/Project Mgr	Appointing Official Endorsing Official	Ex Officio Chairperson	Investigating Authority	Consultants	Emergency Response Center Safety Office	Security	Employees	Contracting Officers	Chief Engineer
Readiness to Conduct Investigations															
Develop mishap NPR and verify implementation	P														
Develop procedures for collateral investigations														P	
Implement NPR 8621.1 for Mission Directorate		P			P										
Develop Program /Project Mishap Preparedness and Contingency Plan		A			C						P				
Develop Center Mishap Preparedness and Contingency Plan					P						S				
Write contract clauses and ensure compliance					S						S			P	
Establish guidelines for release of information					P										
Develop mishap investigation training	P										S				
Initial Response to Mishap or Close Call															
Immediately notify emergency response and supervisor													P		
Notify Center safety office												P	S		
Initially safe and secure mishap site						S				S	P	S	S		
Initiate Center Mishap Preparedness and Contingency Plan											P				
Initiate program Mishap Preparedness and Contingency Plan	*				P						S				
Within 1 hour notify HQ of Type A, B, high visibility mishap, or high visibility close call					P	S					P				
Notify public of potential hazards, release info.										S	S				
Impound and secure records and hardware										S	S	P			
Initiate drug testing										S	S				
Collect witness statements										S	S				
Notify NTSB of aircraft mishaps										S	S			P	
Within 8 hours notify OSHA if required											P				
Within 24 hours send notice to HQ (when applicable) and ensure data recorded in IRIS											P	S			
Select Investigating Authority and Support															
Determine level of investigation	* * C *	*			P									*	
Serve as the appointing official	* *	*			*										
Within 48 hours appoint investigating authority	* C *				*	P									
Concur on MIB membership		P												S	*
Assist investigation as requested					P	S	S	S			S	S	S		
Provide funding for investigation		P			P	*									
Mishap Investigation Process															
Conduct investigation										S	P	P	S	S	
Investigate criminal activity associated with mishaps and close calls															
Release mishap site to restore operations										P	S				
Mishap Report															
Within 75 workdays develop, complete preliminary review, and sign mishap report										P	P	P	P		
Release investigating authority from duty															
Review & endorse mishap report (30 workdays)	* * *				*		P	P						*	*
Approve or reject mishap report (5 workdays)							P								
Authorize mishap report for public release (10 workdays)					P		S							*	
Distribute mishap report (10 workdays)			*		P										
Post - Investigation Activities															
Develop CAP (15 workdays)						P	P								
Review and approve CAP								P							
Implement CAP						P	P								
Verify CAP completed and close out CAP						S	S	S			P				
Develop & submit lessons learned (10 workdays)						P	P	S							
Write mishap investigation completion statement							P								
Retain records and evidence											P				

Figure 2. Mishap Organizational Responsibilities Matrix

1.5 Notification and Reporting Requirements

1.5.1 Immediately after a mishap or close call, NASA employees shall notify the appropriate authorities in the manner specified in paragraph 1.4.27 of this NPR and the Center Mishap Preparedness and Contingency Plan ([Requirement 31209](#)).

1.5.2 The Center safety office shall collect employee safety concerns, mishap reports, and close call reports through a Center process, review the employee reports, verify that they meet the definitions of mishap or close call found in Appendix A and Figure 1, and report those that are consistent with the NPR ([Requirement 31210](#)).

1.5.3 Notify Office of Safety and Mission Assurance, Safety and Assurance Requirements Division (OSMA/SARD). After emergency response has been initiated, within one hour of the occurrence of a Type A mishap, Type B mishap, high-visibility mishap, or high-visibility close call, the Center

safety office shall notify OSMA/SARD by calling 1.202.358.0006, or, if no answer, by calling the NASA Headquarters After Hours Contact Center at 1.866.230.6272 ([Requirement 31211](#)).

a. Mishap notification must be acknowledged (verbally, e-mailed, or faxed) to meet the intent of this requirement ([Requirement 31212](#)).

b. Per NPR 7100.1, paragraph 11.4.1, this includes immediately reporting a human test subject injury or fatality that resulted in a loss of life, a permanent disability, hospitalization, extensive first aid, or lost workday[s] ([Requirement 31213](#)).

1.5.3.1 During this notification, the Center safety office shall provide the following information: the Center name, location of incident, time of incident, number of fatalities (if known), number of hospitalized employees (if known), type of injury (if known), type of damage (if known), contact person, contact person's phone number, and a brief description of the mishap ([Requirement 31214](#)).

1.5.4 Notify OSHA. Within 8 hours of a work-related mishap involving death of a Federal employee, or the hospitalization for inpatient care of three or more employees (provided at least one is a Federal employee), the Center safety office shall notify OSHA by calling the area office nearest the site of the mishap or OSHA's toll-free number, 1.800.321.6742 ([Requirement 31216](#)).

1.5.4.1 OSHA notification is required for any fatality or three or more hospitalizations that occur up to 30 workdays after the respective mishap ([Requirement 31217](#)).

1.5.4.2 The Center safety office shall persist in making contact with OSHA to provide this report until OSHA has acknowledged receipt of the report ([Requirement 31218](#)).

1.5.4.3 In notifying OSHA, the Center safety office shall provide OSHA with the following information: the establishment name, location of incident, time of incident, number of fatalities (if known), number of hospitalized employees (if known), contact person, contact person's phone number, and a brief description of the mishap ([Requirement 31219](#)).

1.5.4.4 After notifying OSHA, the Center safety office shall inform OSMA/SARD that an oral report has been provided to OSHA ([Requirement 31220](#)).

1.5.5 Within 24 hours of a Type A mishap, Type B mishap, high-visibility mishap, or high visibility close call, the Center safety office shall follow up the initial phone notification by sending an electronic notification to OSMA/SARD that includes the following information: Center submitting report; author of report; author's phone number and mail code; date report submitted; time report submitted; incident date; incident time; incident general location; exact location (if known); responsible organization; organization's point of contact; point of contact's phone number and mail code; mission affected; program impact (if known); number and type of injuries or fatalities (if known); type of damage to equipment, flight hardware, flight software, or facilities; estimate of direct cost of damage; and a brief description of the mishap or close call ([Requirement 31215](#)).

1.5.6 Report Criminal Activity Associated with NASA Mishaps to the Office of Inspector General (OIG) and to either the Office of the General Counsel or Center Chief Counsel.

1.5.6.1 The OIG and the Center's Office of the Chief Counsel or the NASA Office of the General Counsel shall be notified if it is suspected that a mishap resulted from criminal activity ([Requirement 31222](#)).

1.5.6.2 Any facts related to criminal activity in connection with a mishap shall be referred to the OIG ([Requirement 31223](#)). Privileged witness statements will be protected to the extent provided by law.

1.6 Additional Notification and Reporting Requirements for Aircraft Investigations

1.6.1 NASA employees shall report immediately to the Center safety office any of the aircraft mishaps or anomalies described in Figure 3, paragraph 1.2, and paragraph 1.6.2 of this NPR ([Requirement 31225](#)).

Figure 3. NTSB Reportable Events (Per 49 CFR Part 830).

All Aircraft	
<input type="checkbox"/>	Flight control system malfunction or failure.
<input type="checkbox"/>	All aircraft accidents with substantial damage.
<input type="checkbox"/>	Inability of any required flight crewmember to perform normal flight duties as a result of injury or illness.
<input type="checkbox"/>	Failure of structural components of a turbine engine, excluding compressor and turbine blades and vanes.
<input type="checkbox"/>	In-flight fire.
<input type="checkbox"/>	Aircraft collision in flight.
<input type="checkbox"/>	Damage to property other than the Agency aircraft.
<i>For large multiengine aircraft (more than 12,500 pounds maximum certificated take-off weight)</i>	
<input type="checkbox"/>	In-flight failure of hydraulic systems that results in sustained reliance on the sole remaining hydraulic or mechanical system for movement of flight control surfaces.
<input type="checkbox"/>	Sustained loss of the power or thrust produced by two or more engines.
<input type="checkbox"/>	An evacuation of an aircraft in which an emergency egress system is used.
<input type="checkbox"/>	An aircraft is overdue and is believed to have been involved in a mishap or close call.

Figure 4: Information Required for All Agency Aircraft Mishaps and Close Calls

1. Type, nationality, and registration marks of the aircraft.
2. Name of owner and operator of the aircraft.

3. Name of the pilot in command.
4. Date and time of the mishap, malfunction, or failure.
5. Last point of departure and point of intended landing of the aircraft.
6. Position of the aircraft with reference to some easily defined geographical point.
7. Number of persons aboard and number killed or seriously injured.
8. Nature of the mishap or occurrence, the weather, and the extent of damage to the aircraft, so far as is known.
9. A description of any explosives, radioactive materials, or other dangerous articles carried.

1.6.2 Employees shall report unexpected aircraft departure from controlled flight for all aircraft except the following high performance jet/test aircraft which can experience departure from controlled flight when engaged in flight test activities: F-15, F-16, F/A-18, T-38, OV-10, and T-34 ([Requirement 31228](#)). These aircraft are exempt because it is a common occurrence for a high performance jet/test aircraft that does dynamic maneuvering to depart from controlled flight.

1.6.3 Immediately after the occurrence of an aviation mishap or NTSB-defined mishap or close call, the Center aircraft operator shall provide all the information listed in Figure 4 to the Center safety office and the Center Chief of Aircraft Operations ([Requirement 31229](#)).

1.6.4 The Center safety office shall notify OSMA/SARD and AMD of any aircraft mishap or close call as listed in paragraph 1.6.2 and Figure 3 of this NPR.

Note: Figure 3 and paragraph 1.6.2 are NTSB reporting requirements. Consequently, this requirement is in addition to reporting all aircraft-related Type A mishaps, Type B mishaps, high-visibility mishaps, and high-visibility close calls to the OSMA/SARD.

1.6.5 The Center safety office shall ensure that for aircraft mishaps and close calls all information listed in Figure 4 of this NPR (with the exception of the pilot's name) is entered in IRIS.

Note: Close calls involving aircraft may be entered into the NAARS in lieu of IRIS.

1.6.6 The Center's Chief of Aircraft Operations or his/her designee shall immediately notify the NTSB of any aircraft mishap, incident, or close call listed in Figure 3 and paragraph 1.6.2 of this NPR and in accordance with 49 CFR Part 830 and notify OSMA/SARD that NTSB notification has been completed.

1.6.7 In the event that the NTSB exercises its authority to investigate a NASA aircraft mishap, NASA shall conduct a separate investigation in accordance with this NPR ([Requirement 31232](#)).

1.6.8 Within 10 workdays of an aircraft mishap or close call that meets the reporting requirements as defined in Figure 3 and paragraph 1.6.2 of this NPR, the Center Chief of Aircraft Operations shall submit an NTSB Form 6120 to the NTSB regional office nearest to the location of the mishap or close call ([Requirement 31233](#)).

1.6.9 An unmanned aerial vehicle (UAV) is not currently considered an aircraft by the NTSB, consequently NTSB reporting requirements are not applicable to a UAV unless personnel are injured or the UAV comes down in a populated area outside a Center's gates.

1.7 Investigation Products for each Classification Level/Type of Investigation

1.7.1 The investigating authority shall conduct an investigation and include the following products in the mishap report according to the requirements listed in Figure 5:

- a. Investigating authority and ex officio signatures demonstrating their approval of the mishap report ([Requirement 31237](#)).
- b. Advisor(s) signatures demonstrating that he/she has reviewed the mishap report; that it meets NASA policies and procedures in his/her functional area; that any privileged or proprietary information, ITAR information, EAR information, or material subject to the Privacy Act has been identified and marked as nonreleasable to the public; and that sections that are releasable to the public are marked releasable and, to the best of his/her knowledge, are ready for public release (pending endorsements and Headquarters and Center public affairs authorization) ([Requirement 31238](#)).
- c. List of the investigating authority's consultants ([Requirement 31239](#)).
- d. An executive summary that does not contain privileged or proprietary information, material subject to the Privacy Act, ITAR information, or EAR information ([Requirement 31240](#)).
- e. The OSHA Final Mishap Summary (OSHA 301 Form: Injury and Illness Incident Report, or an equivalent form), if the mishap is an OSHA recordable incident ([Requirement 31241](#)).
- f. Description of the type of data gathered and evaluated during the investigation ([Requirement 31242](#)).
- g. Narrative description of the facts including what, when, and where ([Requirement 31243](#)).
- h. Timeline ([Requirement 31244](#)).
- i. Description of all structured analysis techniques used and how they contributed to determining the findings ([Requirement 31245](#)).
- j. Event and causal factor tree or similar graphical representation of the mishap ([Requirement 31246](#)).
- k. Description explaining why the mishap/close call occurred including all finding(s) such as proximate cause(s), root cause(s), contributing factor(s), failed barrier(s), observation(s), and the evidence upon which the findings are based ([Requirement 31247](#)).
- l. Conclusions and recommendations ([Requirement 31248](#)).
- m. Minority report, if there is one ([Requirement 31249](#)).

Figure 5. Classification Level/Investigation Type with Corresponding Appointing Official, Endorsing Officials, and Required Products in the Mishap Report

	Classification Level & Investigation Type					
	High-Visibility Mishap or Close Call	Type A	Type B	Type C	Type D	Close Call
Investigating Authority	MIB ¹	MIB (at least 5 members)	MIB (at least 3 members)	MIT or MI	MIT or MI	MIT or MI
Required Products	All (a-m) ¹	All (a-m)	All (a-m)	a-e, g, l, k, m	a, b, g, k, l, m	a, b, g, k, l, m
Appointing Official	MDAA (For Offsite, In-flight or Program Contractor Site) ¹ or CD or AA/OIA (For Center Onsite, or Offsite Center Support Contractor) ¹ or CHMO (For Offsite Human Research Subjects)	Administrator ² , AA ³ , or CD or AA/OIA (For Center Onsite or Offsite Center Support Contractor) or MDAA (For Offsite, In-space flight or at a Program Contractor Site) or CHMO (For Offsite Human Research Subjects)	CD or AA/OIA (For Center Onsite or Offsite Center Support Contractor) or MDAA (For Offsite, In-space flight or at a Program Contractor Site) or CHMO (For Offsite Human Research Subjects)	CD designee or AA/OIA designee (For Center Onsite or Offsite Center Support Contractor) or MDAA Designee (For Offsite, In-space flight or at a Program Contractor Site) or CHMO (For Offsite Human Research Subjects)	CD designee or AA/OIA designee (For Center Onsite or Offsite Center Support Contractor) or MDAA Designee (For Offsite, In-space flight or at a Program Contractor Site) or CHMO (For Offsite Human Research Subjects)	CD designee or AA/OIA designee (For Center Onsite or Offsite Center Support Contractor) or MDAA Designee (For Offsite, In-space flight or at a Program Contractor Site) or CHMO (For Offsite Human Research Subjects)
Concurrence on MIB Membership	Chief/OSMA ¹ Chief Engineer ¹ CHMO ⁷	Chief/OSMA Chief Engineer CHMO ⁷	Chief/OSMA Chief Engineer CHMO ⁷	CHMO ⁷	CHMO ⁷	CHMO ⁷
Endorsing Officials	Appointing Official ¹ , Chief/OSMA ¹ , Chief Engineer AMD ^{1,3} , Procurement ¹ , CHMO ^{1,4} , Other ¹	Appointing Official, Administrator ² , Chief/OSMA Chief Engineer AMD ³ , CHMO ⁴ , Procurement ⁴ , Other ⁴	Appropriate MDAA, Appointing Official, Chief/OSMA Chief Engineer AMD ³ , CHMO ⁴ , Procurement ⁴ , Other	Appointing Official and Center Process	Appointing Official and Center Process	Appointing Official and Center Process
Officials Reviewing Mishap Report Prior to Authorization for Public Release	General Counsel ¹ , OPA ¹ , NASA Export Administrator ¹ , OSPP (Security) ¹	General Counsel, OPA, NASA Export Administrator, OSPP (Security)	General Counsel, OPA, NASA Export Administrator, OSPP (Security)	Center Chief Counsel, Center PAO, Center Export Administrator, Center Process	Center Chief Counsel, Center PAO, Center Export Administrator, Center Process	Center Chief Counsel, Center PAO, Center Export Administrator, Center Process

KEY

- Occurs when the Administrator, AA, MDAA, CD, Chief/OSMA, or CHMO decides that the high-visibility mishap or high-visibility close call should be investigated by a MIB.
- Only when Administrator desires.
- Only when the mishap or close call involves an aircraft.
- Only when the mishap or close call involves an injury or fatality.
- When needed.
- When the mishaps or close calls involve Mission Directorate programs/projects/activities that are not managed by a Center, program, or project, where the mishaps or close calls have occurred outside the Center's gates.
- Onsite human research subjects.

1.7.2 For close calls, where the potential for a Type A mishap or Type B mishap is significant, the Center Safety and Mission Assurance (SMA) director may consider application of a MIB or MIT investigation and their associated products. Serious workplace hazards previously unidentified and discovered as a result of inspections, audits, surveys, or concerns shall be investigated in the same manner as close calls ([Requirement 31672](#)).

1.7.3 For Type B mishaps, Type C mishaps, Type D mishaps, and close calls involving a single person, where the injury/illness occurred because an individual fell down the stairs, slipped or tripped on the floor or ground, experienced a musculoskeletal disorder (both cumulative trauma or acute) while performing routine office duties, was bitten by an insect, and/or aggravated a preexisting medical condition, the mishap investigation may be performed by one trained mishap investigator without the support from an ex officio.

Rationale: Brown recluse spider bites result in hospitalization. They do not require a full MIB, complex investigation, and/or report.

1.7.4 The CD or AA/OIA shall elevate the level of investigation and required products of any mishap or close call upon the request of a higher authority, such as the Administrator, an Associate or Assistant Administrator, or upon his/her discretion ([Requirement 31673](#)).

1.8 Recording Requirements

1.8.1 Within 24 hours, the Center safety office shall ensure that all NASA mishaps and close calls are recorded in IRIS and include the following

information: Center submitting report; author of report; author's phone number and mail code; date report submitted; time report submitted; incident date; incident time; incident general location; exact location (if known); responsible organization; organization's point of contact; point of contact's phone number and mail code; mission affected; program impact (if known); number and type of injuries or fatalities (if known); type of damage to equipment, flight hardware, flight software, or facilities; estimate of direct cost of damage; and a brief description of the mishap or close call ([Requirement 31252](#)).

Note: Close calls involving aircraft may be entered into the NAARS in lieu of IRIS.

1.8.2 For mishaps or close calls involving injury, the occupational health representative or other medical person shall provide the appropriate medical information regarding the person(s) injured and the nature of the injury(s) to the Center safety office for inclusion in IRIS ([Requirement 31253](#)).

1.8.3 The Center safety office shall record mishaps involving injury or illness to NASA civil service employees on the OSHA 300 Log as required by 29 CFR Part 1904.7 ([Requirement 31254](#)).

1.8.4 The Center safety office shall ensure that the information recorded in IRIS is updated as new information becomes available and, at a minimum, verify information is up to date once every 30 days until the investigation is complete and the corrective actions are complete ([Requirement 31255](#)).

1.9 Collateral Investigations

1.9.1 The NASA investigating authority performing the safety investigation per this NPR shall have primacy over other Agency collateral investigations, with the exception of OIG criminal investigations ([Requirement 31257](#)).

1.9.2 The investigating authority shall not distribute witness statements, notes, or transcripts of witness testimony taken during interviews, or medical records to the collateral investigation board or any other Agency, unless ordered in a court of law ([Requirement 31258](#)).

1.9.3 In an unusual case, the MIB chair shall release privileged witness testimony and related material to the OIG upon receipt of a written request that is signed by the Inspector General or Deputy Inspector General, addressed to the NASA Administrator or Deputy Administrator, and forwarded to the MIB chair from the Administrator's office.

Note: The OIG respects and, as a general rule, will defer to the disclosure restrictions attendant to NASA mishap investigations. Upon receipt of such testimonial information, the OIG will consider it to be confidential witness testimony and will treat it as such to the full extent required by the Inspector General Act of 1978.

1.9.4 The investigating authority may provide (at their discretion) the collateral investigation board with access to factual data, physical evidence (with the exception of privileged witness statements, notes and transcripts of privileged testimony, and medical records), analysis, and any other information that will be contained within the mishap investigation report authorized for public release.

1.9.5 Members of the investigating authority shall not participate in both collateral investigations or contractor and safety investigations for the same mishap or at the same time (Requirement).

1.10 Investigations by Outside Authorities

1.10.1 NASA shall support investigations of NASA mishaps by other Federal agencies authorized to investigate NASA mishaps ([Requirement 31261](#)).

1.10.2 NASA shall support investigations of mishaps experienced by other Federal agencies, foreign participants, and private industry in accordance with agreements ([Requirement 31262](#)).

1.10.3 If the NASA appointing official accepts an investigation by other authorities or contractors that is independent and adequately addresses proximate cause(s), root cause(s), and contributing factor(s), the appointing official is not required to conduct a separate NASA investigation.

1.10.4 Examples of situations where investigations by other parties may be accepted include the following:

a. When a Presidential Commission is appointed pursuant to the NASA Authorization Act of 2005 (Public Law 109-155, Section 821) to investigate the loss of a Space Shuttle, the loss of ISS or its operational viability, the loss of any other United States space vehicle carrying humans that is owned by the Federal Government or that is being used pursuant to a contract with the Federal Government, or the loss of a crew member or passenger of any space vehicle described in this subsection.

b. Traffic mishaps involving NASA employees in the course of their duty when investigated by local authorities (i.e., sheriff, state police, coroners) having jurisdiction.

c. An injury or fatality where there is substantial reason to believe the mishap or close call is the result of a criminal or terrorist act to NASA employees and is investigated by local or Federal law enforcement authorities such as the Federal Bureau of Investigation; the Bureau of Alcohol, Tobacco, Firearms, and Explosives; the Department of State; the Drug Enforcement Agency; the Department of Homeland Security; or the OIG.

d. An injury or fatality as a result of a commercial transportation mishap involving NASA personnel on official business that is investigated by authorities having jurisdiction, such as the Federal Aviation Administration and the NTSB.

1.10.5 Contractor and Grantee Mishaps. In those cases that are not NASA mishaps (i.e., solely involve a contractor or grantee mishap or close call at an offsite location, arising out of work performed under a NASA contract and the contractor/grantee is required to investigate pursuant to NFS 1852.223-70), the NASA appointing official is not required to appoint a separate NASA investigating authority unless the contractor's/grantee's mishap report indicates that a NASA policy or procedure was a causal factor or contributing factor and a NASA change is warranted.

1.10.5.1 A contractor onsite injury or illness that is classified as a Type C mishap, Type D mishap, or Close Call may be investigated by the contractor per their contract. The mishap report must be delivered to NASA, and NASA has the option of completing the endorsement process. ([Requirement 31268](#))

1.10.6 When the onsite incident has been classified as a Type D mishap or a close call involving government property damage (including flight hardware, ground processing equipment, and/or the ground facility), the NASA appointing official may allow contractor investigation of the mishap per their contract provided the following are true:

a. NASA serves as the appointing official and approves the investigating authority.

b. The investigating authority has the same membership (e.g., disciplines and training) as defined in this NPR (NPR 8621.1) with the exception that all members and advisors are contractor personnel.

c. The investigating authority performs the investigation per this NPR with the exception of taking privileged witness statements. (Rationale: NASA can not protect privileged witness statements taken by a contractor. Consequently, the contractor is not authorized to grant privilege.)

d. The investigating authority produces the products listed in Figure 5.

e. The NASA appointing official reviews and endorses the report.

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